

CLAIMS:

1. A method of noise filtering an image sequence (VI), characterized in that the method comprises:
 - determining (11) statistics in at least one image of the image sequence (VI);
 - and
 - 5 calculating (14) at least one filtered pixel value (P_i') from a set of original pixel values (P_i, M_i) obtained from the at least one image, wherein the original pixel values (P_i, M_i) are weighted (13) under control (12, α) of the statistics (11).
2. A method as claimed in claim 1, wherein the step of calculating comprises:
 - 10 weighting (13) the set of original pixel values (P_i, M_i) under control (12, α) of the statistics (11) to obtain a weighted set of pixel values (P_i, N_i); and
 - furnishing the weighted set of pixel values (P_i, N_i) to a static filter, in which static filter the at least one filtered pixel value (P_i') is calculated from the weighted set of pixel values (P_i, N_i).
- 15 3. A method as claimed in claim 1, wherein the statistics (11) include a spatial and/ or temporal spread (S) of the set of original pixel values (P_i, M_i).
4. A method as claimed in claim 3, wherein the spatial and/ or temporal spread
 - 20 (S) is a sum of absolute differences, a given absolute difference being obtained by subtracting an average pixel value from a given original pixel value (P_i, M_i).
5. A method as claimed in claim 1, wherein the set of original pixel values (P_i, M_i) include a central pixel value (P_i) and spatially and/or temporally surrounding pixel
 - 25 values (M_i), wherein as a result of the noise filtering, the central pixel value (P_i) is replaced by the filtered pixel value (P_i').
6. A method as claimed in claim 2, wherein the set of weighted pixel values (P_i, N_i) is obtained by taking for each pixel in the set of original pixels (P_i, M_i), a combination

of a portion α of the original pixel value (P_i, M_i) and a portion $1-\alpha$ of a central pixel value (P_i).

7. A method as claimed in claim 1,
 5 wherein the statistics (11) are furnished to a look-up table (12), from which look-up table (12) a control signal (α) is obtained, which control signal (α) controls the weighting (13).
8. A method as claimed in claim 2,
 10 wherein the at least one filtered pixel value (P_i') is obtained by calculating (14) a median of the weighted set of pixel values (P_i, N_i).
9. A method as claimed in claim 2,
 15 wherein the at least one filtered pixel value (P_i') is obtained by calculating (14) an average of the weighted set of pixel values (P_i, N_i).
10. A method as claimed in claim 9, the method comprising:
 determining (41) a spatial spread (S_{spat}) calculated from spatially displaced original pixel values (P_i, M_i) in the set of original pixel values (P_i, M_i, P_{i1}, P_{i2});
 20 determining (42) a temporal spread (S_{temp}) calculated from temporally displaced original pixel values (P_i, P_{i1}, P_{i2}) in the set of original pixel values (P_i, M_i, P_{i1}, P_{i2});
 and
 weighting (46) the spatially displaced original pixel values (P_i, M_i) under control (43) of the spatial spread (S_{spat}) and the temporally displaced original pixel values
 25 (P_i, P_{i1}, P_{i2}) under control (44,45) of the temporal spread (S_{temp}).
11. A method as claimed in claim 10, wherein the weighted temporally displaced original pixel values (WP_1, WP_2) are divided (a) to lessen their weight in the filtering (47).
- 30 12. A method as claimed in claim 10, wherein the temporally displaced original pixel values include two original pixel values (P_{i1}, P_{i2}) from different fields in a same frame (F_0) and at least one original pixel value of a previous frame (F_{-1}).

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13. A method as claimed in claim 12, wherein filtered temporally displaced pixel values are used rather than temporally displaced original pixel values.
14. A method of encoding (1) an image sequence (VI), wherein the image sequence (VI) is noise filtered according to a method as claimed in claim 1.
15. A device for noise filtering an image sequence, the device comprising:
computing means (11) for determining statistics in at least one image of the image sequence (VI); and
10 filtering means (14) for calculating at least one filtered pixel value (P_t) from a set of original pixel values (P_t, M_i) obtained from the at least one image, wherein the original pixel values (P_t, M_i) are weighted (13) under control (12, α) of the statistics (11).
16. A device for encoding (1) an image sequence ($V1$), the device comprising a
15 device for noise filtering as claimed in claim 15.